

To: Grantham, Nancy[Grantham.Nancy@epa.gov]
From: StClair, Christie
Sent: Thur 10/8/2015 9:39:12 PM
Subject: NYU student/freelance science writer (DDL COB Fri): Gladstone water treatment plant

Hi Nancy, is this GTG? Note A#5 uses the first two sentences of Mike's suggestion but then I used our current long-term mitigation statement.

Thanks,

Christie

Reporter: Jeanette Ferrara

Outlet: Freelance journalist pursuing a Master's degree in Science Journalism at NYU

Contact **Personal Email/Ex. 6** Personal Phone/Ex. 6

DDL: COB Tomorrow/Fri

1. Exactly where is the treatment plant going to be installed?

The plant will be installed at the Gladstone, CO command post area, about 10 miles north of Silverton, CO and the junction of Country Rtes 110 and 35.

2. How will the plant treat the toxic wastewater? (i.e. what is the exact process by which the toxic material will be removed from the water?)

- Discharging treated water from the system will have a neutral pH in the range of between 6.0 and 9.0 pH units. (pH, or the acidity of a fluid ranges from 0.0 for acid and 14.0 for caustic fluids and neutral is 7.0)
- Dissolved solids will be reduced by removal of metals and formation of metal hydroxide sludge.
- Total solids will be reduced by coagulation, flocculation, and settling through the

clarifier.

- Color is currently caused primarily iron oxidation, and staining is caused both by iron and manganese in the mine water forming precipitates on rocks and in sediments. The treatment process will remove both iron and manganese by more than 90%, reducing the potential for color.
- For metals of concern, the treatment process typically removes metals between 95% and 99%.

3. How effective will the plant be/what are the expectations?

See above answer.

4. After treatment, will the water be of high enough quality for drinking?

This plant is not designed to output drinking quality water; see EPA's press release for more detail on intent and purpose:

EPA Announces Gold King Mine Water Treatment System for Winter 2015-16

(Washington, D.C.) -- The U.S. Environmental Protection Agency (EPA) announced today that a portable, temporary treatment system will be located in Gladstone, CO to continue treating water discharged from the Gold King Mine during winter 2015-16. This system will replace temporary settling ponds constructed by the EPA in August 2015.

The transition to the portable treatment system is necessary as winter temperatures at the mine site (elevation 10,500 feet) can reach -20F, making it unsafe to manually treat water at the mine site. The schedule calls for the treatment system to be operational by Oct. 14, 2015. EPA's contractor, ER LLC, awarded a subcontract Sept. 22, 2015 to Alexco Environmental Group (US) Inc. to complete the work.

This system will treat the approximately 550 gallons per minute (gpm) of water that continue to flow from the mine, including the discharges related to ongoing work in the mine to stabilize conditions. The system is designed to handle up to 1,200 gpm. The objective of the treatment system is to neutralize the mine discharge and remove solids and metals. Although the Gold King Mine discharge is just one of many into Cement Creek, the treatment will remove a portion of the metal loading to Cement Creek.

The EPA continues to evaluate data to determine the impact of the Gold King Mine on water quality.

Additional information about EPA's Gold King Mine response:
www.epa.gov/goldkingmine

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5. Is this really going to make any difference given how much toxic wastewater has already been released into the environment?

The mines in the area have been releasing contaminated mine wastewater into the environment for decades, and addressing the situation is a complicated problem. The plant will treat water being released from Gold King Mine following the Aug. 5 incident. It is our understanding that CDPHE is convening a conversation on long-term mitigation strategies, which might include NPL listing. I suggest contacting Monica Desch Sheets, 303-692-3439, Monica.Sheets@state.co.us or Doug Jamison, 303-692-3404, Doug.Jamison@state.co.us for more information. For additional background on the role of EPA: The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, better known as Superfund) contains public participation provisions that direct the EPA to engage communities affected by actual and potential Superfund. Last month, at the request of the local communities, EPA's Region 8 Administrator and the Office of Solid Waste and Emergency Response Assistant Administrator met with representatives from Silverton, Durango, La Plata County, San Juan County, Southern Ute Tribe, and other stakeholders on, to discuss the National Priorities List (NPL) process and possible next steps. Following this meeting, EPA continues to engage in dialogue with all pertinent stakeholders. At this time we haven't received any requests from the governor to propose listing this site on the NPL, which we look for as part of the agency's policy and practice.

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